TEJUS CONSULTANTS

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWM head in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06).	
Client	Bruhat Bengaluru Mahanagara Palike	
Consultant	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore	
Contractor	Sri. Yogesh M/S Nandi Constructions	
Field Dry Density test by Sand Replacement Method (As per IS 2720 (Part 28)		
	Date:	**30-06-2020**
Layer no. or level	Sub Grade I layer	
Depth of hole	200mm	
Field density:	**1**	**2**
Chainage / Location	**Yellamma temple 3rd cross road '@40**	**Yellamma temple right side road @50**
Wt. of wet material from hole (Ww) gms.	6328	6340
Wt. of sand+cylinder before pouring (w1) gms.	15000	15000
Wt. of sand+cylinder after pouring (w2) gms.	9725	9695
Wt. of sand in cone (w3) gms.	875	875
Wt. of sand in hole (w4)=(w1-w2-w3) gms.	4400	4430
Bulk density of sand (γs)gm/cc	1.316	1.316
Bulk density of material(i.e. wt. of the wet material) (γb)=(Ww/w4*(γs))gm/cc	1.89	1.88
Moisture meter reading(moisture content)	9.00	8.50
Result		
FDD(Wt.of the dry material)=(100γb/100+mc)gm/cc	1.74	1.74
MDD	1.81	1.81
OMC	9.40%	9.40%
% compaction obtained	95.93	95.90
% compaction required	95%	95%

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TEJUS CONSULTANTS

Consultant's Representative

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

TEJUS CONSULTANTS

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Grade of concrete:	M20
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959
Location	Hemanna layout

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	30-06-2020	07-06-20	7 days	8.138	22500	308	13.69	13.78
2	30-06-2020	07-06-20	7 days	8.144	22500	312	13.87	
3	30-06-2020	07-06-20	7 days	8.152	22500	310	13.78	

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TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

TEJUS CONSULTANTS

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Grade of concrete:	M20
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959
Location	Hemanna layout

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	30-06-2020	07-06-20	7 days	8.124	22500	306	13.60	13.75
2	30-06-2020	07-06-20	7 days	8.136	22500	312	13.87	
3	30-06-2020	07-06-20	7 days	8.132	22500	310	13.78	

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike
Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. Yogesh M/S Nandi Constructions

SPECIFIC GRAVITY AND WATER ABSORPTION

FINE AGGREGATE (IS-2386-PART-3)

Type of Material	M sand	Proposed Use	P.C.C
Location/Source	Hemanna layout	Date of Sampling	26-06-2020
Period of Soaking	24 hours	Date of Testing	27-06-2020

Sl. No.	Test Property		TRIAL - 1	TRIAL - 2	TRIAL - 3	Average
A	Weight of sturated surface dry sample gm.		644	672	660	
B	Weight of oven - dry sample gm.		635	663	651	
C	Weight of Pycnometer Filled with water gm		1275	1275	1275	
D	Weight of Pycnometer + sample + water gm		1680	1698	1690	
E	Bulk specific gravity	B	2.657	2.663	2.657	2.659
		(C+A-D)				
G	Absorption (%)	(A-B)*100	1.417	1.357	1.382	1.386
		B				

Remarks : ✓ Satisfactory / Not Satisfactory

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TEST REPORT	
Clients	Bruhat Bangalore Mahanagara Palike
Project	Improvements to Roads,Drainds and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. Yogesh M/S Nandi Constructions

SIEVE ANALYSIS

Total Weight:	3000 gms				
Type of Material	Fine aggregate (River Sand/M sand)		Proposed Use	P.C.C	
Sample Location	Hemanna layout		Date of Sampling	26-06-2020	
			Date of Testing	27-06-2020	
IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing (Zone-II)
10.00 mm	0	0	0	100.00	100
4.75 mm	208	208	6.93	93.07	90 - 100
2.36 mm	294	502	16.73	83.27	75 - 100
1.18 mm	556	1058	35.27	64.73	55 - 90
0.600 mm	490	1548	51.60	48.40	35 -59
0.300 mm	635	2183	72.77	27.23	8-30
0.150 mm	612	2795	93.17	6.83	0 - 10
Pan	205	3000			-

Remarks : Satisfactory / Not Satisfactory

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike
Project	Improvements to Roads,Drainds and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. Yogesh M/S Nandi Constructions

SIEVE ANALYSIS

Total Weight:	**3000** gms				
Type of Material	**Fine aggregate (River Sand/M sand)**		**Proposed Use**	P.C.C	
Sample Location	Hemanna layout		**Date of Sampling**	26-06-2020	
			Date of Testing	27-06-2020	
IS Sieve Size	**Weight Retained**	**Cum. Weight Retained**	**Cum. % Retained**	**Cum. % Passing**	**Spec. Limit (%) Passing (Zone-II)**
10.00 mm	0	0	0	100.00	**100**
4.75 mm	208	208	6.93	93.07	**90 - 100**
2.36 mm	294	502	16.73	83.27	**75 - 100**
1.18 mm	556	1058	35.27	64.73	**55 - 90**
0.600 mm	490	1548	51.60	48.40	**35 -59**
0.300 mm	635	2183	72.77	27.23	**8-30**
0.150 mm	612	2795	93.17	6.83	**0 - 10**
Pan	205	3000			**-**

Remarks : Satisfactory / Not Satisfactory

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TEST REPORT

Clients	BRUHAT BENGALORE MAHANAGARA PALIKE
Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. Yogesh M/S Nandi Constructions

SPECIFIC GRAVITY AND WATER ABSORPTION

FINE AGGREGATE (IS-2386-PART-3)

Type of Material	Fine aggregate (M sand)	**Proposed Use**	concrete
Location/Source	At Laboratory	**Date of Sampling**	29-06-2020
Period of Soaking	24 hours	**Date of Testing**	30-06-2020

Sl. No.	Test Property	TRIAL - 1	TRIAL - 2	TRIAL - 3	
A	Weight of sturated surface dry sample gm.	650	642	652	
B	Weight of oven - dry sample gm.	642	635	643	
C	Weight of Pycnometer Filled with water gm	1275	1275	1275	
D	Weight of Pycnometer + sample + water gm	1684	1678	1685	
E	Bulk specific gravity $\frac{B}{(C+A-D)}$	2.664	2.657	2.657	2.659
G	Absorption (%) $\frac{(A-B)*100}{B}$	1.246	1.102	1.400	1.249

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike	
Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)	
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore	
Contractor	Sri. Yogesh M/S Nandi Constructions	
Total Weight:	10000	gms

SIEVE ANALYSIS

Type of Material	20 mm down size	**Proposed Use**	Concrete
Sample Location	Plant/At site	**Date of Sampling**	29-06-2020
		Date of Testing	30-06-2020

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing
40.00 mm	0	0	0	100	100
20.00 mm	265	265	2.65	97.35	95 - 100
10.00 mm	4838	5103	51.03	48.97	25 - 55
4.75 mm	4226	9329	93.29	6.71	0 - 10
Pan	671	10000			

Remarks : ✓ Satisfactory / Not Satisfactory

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike
Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division. (Package-06)
Consultants	Tejus Consultants, Bangalore
Contractor	Sri.Yogesh M/s Nandi Constructions,

SIEVE ANALYSIS

Total Weight:	3000 gms		
Type of Material	Fine aggregate (River Sand/ M sand)	Proposed Use	Concrete
Sample Location	At Site/Plant	Date of Sampling	06-07-2020
		Date of Testing	07-07-2020

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing (Zone-II)
10.00 mm	0	0	0	100.00	100
4.75 mm	232	232	7.73	92.27	90 - 100
2.36 mm	325	557	18.57	81.43	75 - 100
1.18 mm	436	993	33.10	66.90	55 - 90
0.600 mm	478	1471	49.03	50.97	35 -59
0.300 mm	764	2235	74.50	25.50	8-30
0.150 mm	612	2847	94.90	5.10	0 - 10
Pan	162	3009			-

Remarks : Satisfactory / Not Satisfactory

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TEST REPORT

Clients	BRUHAT BENGALORE MAHANAGARA PALIKE
Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. Yogesh M/S Nandi Constructions

SPECIFIC GRAVITY AND WATER ABSORPTION

FINE AGGREGATE (IS-2386-PART-3)

Type of Material	Fine aggregate (M sand)	**Proposed Use**	concrete
Location/Source	At Laboratory	**Date of Sampling**	08-07-2020
Period of Soaking	24 hours	**Date of Testing**	09-07-2020

Sl. No.	Test Property	TRIAL - 1	TRIAL - 2	TRIAL - 3	
A	Weight of sturated surface dry sample gm.	643	675	638	
B	Weight of oven - dry sample gm.	635	664	629	
C	Weight of Pycnometer Filled with water gm	1275	1275	1275	
D	Weight of Pycnometer + sample + water gm	1680	1701	1676	
E	Bulk specific gravity $\frac{B}{(C+A-D)}$	2.668	2.667	2.654	2.663
G	Absorption (%) $\frac{(A-B)*100}{B}$	1.260	1.657	1.431	1.449

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TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

TEJUS CONSULTANTS

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Grade of concrete:	M20
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959
Location	sapthagiri layout

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	09-07-2020	16-07-2020	7 days	8.136	22500	302	13.42	13.63
2	09-07-2020	16-07-2020	7 days	8.128	22500	308	13.69	
3	09-07-2020	16-07-2020	7 days	8.142	22500	310	13.78	

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike
Project	Improvements to Roads,Drainds and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. Yogesh M/S Nandi Constructions

SPECIFIC GRAVITY AND WATER ABSORPTION

FINE AGGREGATE (IS-2386-PART-3)

Type of Material	M sand	**Proposed Use**	P.C.C
Location/Source	Oxford School road	**Date of Sampling**	16-07-2020
Period of Soaking	24 hours	**Date of Testing**	17-07-2020

Sl. No.	Test Property	TRIAL - 1	TRIAL - 2	TRIAL - 3	Average
A	Weight of sturated surface dry sample gm.	638	650	676	
B	Weight of oven - dry sample gm.	630	642	666	
C	Weight of Pycnometer Filled with water gm	1275	1275	1275	
D	Weight of Pycnometer + sample + water gm	1676	1684	1700	
E	Bulk specific gravity B / (C+A-D)	2.658	2.664	2.653	2.659
G	Absorption (%) (A-B)*100 / B	1.270	1.246	1.502	1.339

Remarks : AE-1 ✓ Satisfactory / Not Satisfactory

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TEST REPORT	
Clients	Bruhat Bangalore Mahanagara Palike
Project	Improvements to Roads,Drainds and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. Yogesh M/S Nandi Constructions

SIEVE ANALYSIS

Total Weight:	3000 gms				
Type of Material	Fine aggregate (River Sand/M sand)		Proposed Use	P.C.C	
Sample Location	Oxford School road		Date of Sampling	16-07-2020	
			Date of Testing	17-07-2020	
IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing (Zone-II)
10.00 mm	0	0	0	100.00	100
4.75 mm	218	218	7.27	92.73	90 - 100
2.36 mm	294	512	17.07	82.93	75 - 100
1.18 mm	530	1042	34.73	65.27	55 - 90
0.600 mm	596	1638	54.60	45.40	35 -59
0.300 mm	626	2264	75.47	24.53	8-30
0.150 mm	614	2878	95.93	4.07	0 - 10
Pan	122	3000			-

Remarks : AE-1 AE Satisfactory / Not Satisfactory

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Consultant's Representative

TEST REPORT

TEJUS CONSULTANTS

Clients	Bruhat Bangalore Mahanagara Palike
Project	Improvements to Roads,Drainds and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. Yogesh M/S Nandi Constructions

SPECIFIC GRAVITY AND WATER ABSORPTION

FINE AGGREGATE (IS-2386-PART-3)

Type of Material	M sand	Proposed Use	P.C.C
Location/Source	Sapthagiri Layout	Date of Sampling	19-07-2020
Period of Soaking	24 hours	Date of Testing	20-07-2020

Sl. No.	Test Property		TRIAL - 1	TRIAL - 2	TRIAL - 3	Average
A	Weight of sturated surface dry sample gm.		654	646	666	
B	Weight of oven - dry sample gm.		645	638	658	
C	Weight of Pycnometer Filled with water gm		1275	1275	1275	
D	Weight of Pycnometer + sample + water gm		1687	1682	1693	
E	Bulk specific gravity	B	2.665	2.669	2.653	2.663
		(C+A-D)				
G	Absorption (%)	(A-B)*100	1.395	1.254	1.216	1.288
		B				

Remarks : AE-I Satisfactory / Not Satisfactory

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TEJUS CONSULTANTS

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TEST REPORT

Clients	BRUHAT BENGALORE MAHANAGARA PALIKE
Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. Yogesh M/S Nandi Constructions

SPECIFIC GRAVITY AND WATER ABSORPTION

FINE AGGREGATE (IS-2386-PART-3)

Type of Material	Fine aggregate (River Sand/ M sand)	**Proposed Use**	concrete
Location/Source	At Site/Plant	**Date of Sampling**	21-07-2020
Period of Soaking	24 hours	**Date of Testing**	22-07-2020

Sl. No.	Test Property	TRIAL - 1	TRIAL - 2	TRIAL - 3	
A	Weight of sturated surface dry sample gm.	650	666	646	
B	Weight of oven - dry sample gm.	640	658	637	
C	Weight of Pycnometer Filled with water gm	1275	1275	1275	
D	Weight of Pycnometer + sample + water gm	1684	1694	1682	
E	Bulk specific gravity $\frac{B}{(C+A-D)}$	2.656	2.664	2.665	2.662
G	Absorption (%) $\frac{(A-B)*100}{B}$	1.563	1.216	1.413	1.397

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PRECAST SLAB (CORE) TEST REPORT

Client	:	Bruhat Bangalore Mahanagara Palike
Contractor	:	Sri. Yogesh M/S Nandi Constructions
Name of Work	:	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWM head in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
No.of Sample Tested	:	3
Date of Testing	:	27-07-2020
Techinical Reference	:	IS:516-1959 (Reaffirmed 1999), SP-24:1983.
Grade of Concrete	:	M_{15}. 100mm thick
Location		Vikas Layout

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	90.00	0.456	2580.43	1.80	0.960	30.28	15.42	16.66	15.99	19.99
2	50.00	90.00	0.460	2603.07	1.80	0.960	30.22	15.39	16.62	15.96	19.95
3	50.00	90.00	0.452	2557.80	1.80	0.960	30.16	15.36	16.59	15.93	19.91

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TEJUS CONSULTANTS

Consultant's Representative

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PRECAST SLAB (CORE) TEST REPORT

Client	:	Bruhat Bangalore Mahanagara Palike
Contractor	:	Sri. Yogesh M/S Nandi Constructions
Name of Work	:	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWM head in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
No.of Sample Tested	:	3
Date of Testing	:	02-08-2020
Techinical Reference	:	IS:516-1959 (Reaffirmed 1999), SP-24:1983.
Grade of Concrete	:	M15 ,250mm Thick
Location		KHB colony road

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (KN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	100.00	180.00	3.522	2491.31	1.80	0.960	118.00	15.02	16.23	15.58	19.47
2	100.00	180.00	3.518	2488.48	1.80	0.960	119.00	15.15	16.36	15.71	19.64
3	100.00	180.00	3.488	2467.26	1.80	0.960	116.00	14.77	15.95	15.31	19.14

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CIVIL EXPERTS
ISO 9001:2015
CONSULTANTS & TESTING CENTER

Highway / Building Material Testing | Structural Strengthening Solutions
Quality Control / Assurance / Audit | Proof Checking (Structural Designs & Drawings)
Soil Stabilization and Shoring Services | Non - Destructive Testing

NABL ACCREDITED AS PER ISO/IEC 17025:2017

Job No.:CECTC-MT-IWD-073-2020-21

Date: 05.08.2020

TEST RESULTS OF PHYSICAL PROPERTIES OF REINFORCEMENT STEEL

Client : **Bruhat Bangalore Mahanagara Palike.**
Contractor : **Sri. Yogesh M/S Nandi Constructions,** Bangalore.
Name of Consultant : **Tejus Consultants**
Name of Work : Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWM head in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06).
Sample Identification : 8mm, 10mm, 12mm, 16mm & 20mm TMT Fe 500 Bars
Technical Reference : IS 1786:2008, IS 1608:2005, IS 1599:1985 (Reaffirmed 2006)
Date of test: : 05.08.2020

Sl.No	Nominal size (dia in mm)	Mass per metre (kg/metre)	TENSILE STRENGTH		
			0.20 % proof stress/ yield stress (N/mm^2)	Tensile strength (N/mm^2)	Elongation, percent on gauge length
1	8	0.396	532	574	17
2	10	0.622	547	586	18
3	12	0.886	551	596	19
4	16	1.587	562	602	20
5	20	2.467	574	617	21

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For Civil Experts

Authorised Signature

174, Sri Ranga Complex, Amrutha Nagar Main Road, New Bank Colony, Kononakunte, Bangalore - 560 062.
Mobile : +91 97429 59595 | Tel/Fax : 080 2632 2565 | Email : civilexpertsltd@gmail.com | URL : www.civilexperts.co.in

TEJUS CONSULTANTS

TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike
Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Consultants	Tejus Consultants, Bangalore
Contractor	Sri. Yogesh M/S Nandi Constructions

SIEVE ANALYSIS

Total Weight:	3000 gms		
Type of Material	Fine aggregate (River Sand/ M sand)	Proposed Use	concrete
Sample Location	At Site/Plant	Date of Sampling	04-08-2020
		Date of Testing	05-08-2020

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing (Zone-II)
10.00 mm	0	0	0	100.00	100
4.75 mm	210	210	7.00	93.00	90 - 100
2.36 mm	324	534	17.80	82.20	75 - 100
1.18 mm	428	962	32.07	67.93	55 - 90
0.600 mm	496	1458	48.60	51.40	35 -59
0.300 mm	702	2160	72.00	28.00	8-30
0.150 mm	648	2808	93.60	6.40	0 - 10
Pan	192	3000			-

Remarks : ✓ Satisfactory / Not Satisfactory

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TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Grade of concrete:	M20
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959
Location	sapthagiri layout

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	09-07-2020	06-08-2020	28days	8.144	22500	488	21.69	21.54
2	09-07-2020	06-08-2020	28days	8.136	22500	486	21.60	
3	09-07-2020	06-08-2020	28days	8.134	22500	480	21.33	

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TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

TEJUS CONSULTANTS

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Grade of concrete:	M20
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959
Location	sapthagiri layout

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	09-07-2020	06-08-2020	28days	8.148	22500	474	21.07	21.19
2	09-07-2020	06-08-2020	28days	8.150	22500	472	20.98	
3	09-07-2020	06-08-2020	28days	8.146	22500	484	21.51	

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TEST REPORT

Clients	Bruhath Bangalore Mahanagara Palike
Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri.Yogesh M/s Nandi Constructions
Total Weight in gm:	3000

SIEVE ANALYSIS

Type of Material	40 mm down size	**Proposed Use**	PCC
Sample Location	At Site/Plant	**Date of Sampling**	08-08-2020
		Date of Testing	09-08-2020

IS Sieve Size	Weight Retained in gm	Cum. Weight Retained in gm	Cumulative Weight Retained in %	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA-2007) % of Passing For Graded Aggregate of Nominal Size
80.00mm	0	0	0.00	100.00	100
63.00mm	0	0	0.00	100.00	-
40.00mm	82	82	2.73	97.27	95-100
20.00mm	1456	1538	51.27	48.73	30-70
10.00mm	985	2523	84.10	15.90	10-35
4.75mm	410	2933	97.77	2.23	0-5
Pan	67	3000	100.00	0.00	

Remarks : ✓ Satisfactory / Not Satisfactory

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike
Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. Yogesh M/s Nandi Constructions,

SIEVE ANALYSIS

Total Weight:	3000 gms				
Type of Materia	**Fine aggregate (River Sand/M sand)**		**Proposed Use**	Concrete	
Sample Location	At Plant/site		**Date of Sampling**	08-08-2020	
			Date of Testing	09-08-2020	
IS Sieve Size	**Weight Retained**	**Cum. Weight Retained**	**Cum. % Retained**	**Cum. % Passing**	**Spec. Limit (%) Passing (Zone-II)**
10.00 mm	0	0	0	100.00	**100**
4.75 mm	220	220	7.33	92.67	**90 - 100**
2.36 mm	282	502	16.73	83.27	**75 - 100**
1.18 mm	515	1017	33.90	66.10	**55 - 90**
0.600 mm	542	1559	51.97	48.03	**35 -59**
0.300 mm	659	2218	73.93	26.07	**8-30**
0.150 mm	536	2754	91.80	8.20	**0 - 10**
Pan	246	3000			-

Remarks : AE1 AEE ✓ Satisfactory / Not Satisfactory

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Consultant's Representative

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TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

TEJUS CONSULTANTS

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Grade of concrete:	M20
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959
Location	Vikas layout

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	05-08-2020	11-08-2020	7 days	8.142	22500	312	13.87	13.72
2	05-08-2020	11-08-2020	7 days	8.152	22500	308	13.69	
3	05-08-2020	11-08-2020	7 days	8.154	22500	306	13.60	

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TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

TEJUS CONSULTANTS

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Grade of concrete:	M20
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959
Location	Vikas layout

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	05-08-2020	11-08-2020	7 days	8.142	22500	314	13.96	13.66
2	05-08-2020	11-08-2020	7 days	8.146	22500	306	13.60	
3	05-08-2020	11-08-2020	7 days	8.136	22500	302	13.42	

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TEST REPORT	
Clients	Bruhat Bangalore Mahanagara Palike
Project	Improvements to Roads,Drainds and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. Yogesh M/S Nandi Constructions

SPECIFIC GRAVITY AND WATER ABSORPTION

FINE AGGREGATE (IS-2386-PART-3)

Type of Material	M sand	Proposed Use	P.C.C
Location/Source	Vikas layout	Date of Sampling	10-08-2020
Period of Soaking	24 hours	Date of Testing	11-08-2020

Sl. No.	Test Property		TRIAL - 1	TRIAL - 2	TRIAL - 3	Average
A	Weight of sturated surface dry sample gm.		674	670	656	
B	Weight of oven - dry sample gm.		666	660	647	
C	Weight of Pycnometer Filled with water gm		1275	1275	1275	
D	Weight of Pycnometer + sample + water gm		1698	1696	1688	
E	Bulk specific gravity	B	2.653	2.651	2.663	2.656
		(C + A - D)				
G	Absorption (%)	(A - B) *100	1.201	1.515	1.391	1.369
		B				

Remarks : AE-1 AE A.E.E Satisfactory / Not Satisfactory

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Consultant's Representative

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TEST REPORT

Clients	BRUHAT BENGALORE MAHANAGARA PALIKE
Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. Yogesh M/s Nandi Constructions,

SPECIFIC GRAVITY AND WATER ABSORPTION

FINE AGGREGATE (IS-2386-PART-3)

Type of Material	**Sand/M sand**	**Proposed Use**	Concrete
Location/Source	**At Plant/site**	**Date of Sampling**	10-08-2020
Period of Soaking	**24 hours**	**Date of Testing**	11-08-2020

Sl. No.	Test Property	TRIAL - 1	TRIAL - 2	TRIAL - 3	Average
A	Weight of sturated surface dry sample gm.	661	641	672	
B	Weight of oven - dry sample gm.	653	633	664	
C	Weight of Pycnometer Filled with water gm	1275	1275	1275	
D	Weight of Pycnometer + sample + water gm	1690	1678	1698	
E	Bulk specific gravity $\frac{B}{(C+A-D)}$	2.654	2.660	2.667	2.660
G	Absorption (%) $\frac{(A-B)*100}{B}$	1.225	1.264	1.205	1.231

Remarks : AE-1 AE Satisfactory / Not Satisfactory

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No. 58, 3rd main, 6th Cross, 1st Stage KHB Colony, Basaveshwaranagar, Bangalore - 560079, C : +91 80 23287532. tejusconsultants@gmail.com

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TEST REPORT

Clients	BRUHAT BENGALORE MAHANAGARA PALIKE
Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. Yogesh M/s Nandi Constructions,

SPECIFIC GRAVITY AND WATER ABSORPTION

FINE AGGREGATE (IS-2386-PART-3)

Type of Material	Sand/M sand	Proposed Use	Concrete
Location/Source	At Plant/site	Date of Sampling	11-08-2020
Period of Soaking	24 hours	Date of Testing	12-08-2020

Sl. No.	Test Property	TRIAL - 1	TRIAL - 2	TRIAL - 3	Average
A	Weight of sturated surface dry sample gm.	636	658	674	
B	Weight of oven - dry sample gm.	628	650	666	
C	Weight of Pycnometer Filled with water gm	1275	1275	1275	
D	Weight of Pycnometer + sample + water gm	1675	1688	1698	
E	Bulk specific gravity $\frac{B}{(C+A-D)}$	2.661	2.653	2.653	2.656
G	Absorption (%) $\frac{(A-B)*100}{B}$	1.274	1.231	1.201	1.235

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Consultant's Representative

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TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

TEJUS CONSULTANTS

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Grade of concrete:	M20
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959
Location	Vinayaka layout

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	22-07-2020	18-08-2020	28 days	8.142	22500	468	20.80	21.04
2	22-07-2020	18-08-2020	28 days	8.148	22500	482	21.42	
3	22-07-2020	18-08-2020	28 days	8.144	22500	470	20.89	

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TEST REPORT	
Clients	BRUHAT BENGALORE MAHANAGARA PALIKE
Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06) Samudhaya Bhavan
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri.Yogesh M/s Nandi Constructions,

SPECIFIC GRAVITY AND WATER ABSORPTION

FINE AGGREGATE (IS-2386-PART-3)

Type of Material	Fine aggregate (River Sand/ M sand)	Proposed Use	Concrete
Location/Source	At Site/Plant	Date of Sampling	19-08-2020
Period of Soaking	24 hours	Date of Testing	20-08-2020

Sl. No.	Test Property	TRIAL - 1	TRIAL - 2	TRIAL - 3	
A	Weight of sturated surface dry sample gm.	668	658	634	
B	Weight of oven - dry sample gm.	660	650	626	
C	Weight of Pycnometer Filled with water gm	1275	1275	1275	
D	Weight of Pycnometer + sample + water gm	1696	1688	1674	
E	Bulk specific gravity $\frac{B}{(C+A-D)}$	2.672	2.653	2.664	2.663
G	Absorption (%) $\frac{(A-B)*100}{B}$	1.212	1.231	1.278	1.240

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TEST REPORT

TEJUS CONSULTANTS

Clients	Bruhat Bangalore Mahanagara Palike
Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Consultants	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Total Weight:	10000 gms

SIEVE ANALYSIS

Type of Material	**12.5 mm down size**	**Proposed Use**	CONCRETE
Sample Location	At Site/Plant	**Date of Sampling**	25-08-2020
		Date of Testing	26-08-2020

IS Sieve Size (in mm)	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing
20.0	0	0	0	100	100
12.5	546	546	5.46	94.54	90-100
10.0	4470	5016	50.16	49.84	40-85
4.75	4530	9546	95.46	4.54	0-10
Pan	454	10000			

Remarks : Satisfactory / Not Satisfactory

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4.The material used in the site satisfied the standard of MORTH's 5th revision and hence can be used in the work.

TEJUS CONSULTANTS

Authorised Signatory

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No. 58, 3rd main, 6th Cross, 1st Stage KHB Colony, Basveshwaranagar, Bangalore - 560079, O : +91 80 23287532, tejusconsultants@gmail.com

Test Report on Compressive Strength of Concrete Cubes

TEJUS CONSULTANTS

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri.Yogesh M/s Nandi Constructions,
Location:	Cement
Grade of concrete:	M30
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959
Location:	SWD culvert,bande road

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	20-08-2020	26-08-2020	7 days	8.224	22500	442	19.64	19.61
2	20-08-2020	26-08-2020	7 days	8.324	22500	438	19.47	
3	20-08-2020	26-08-2020	7 days	8.420	22500	444	19.73	

Remarks : AE-1 ✓ Satisfactory / Not Satisfactory

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Consultant's Representative

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TEJUS
CONSULTANTS

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06) Samudhaya Bhavan
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri.Yogesh M/s Nandi Constructions,
Grade of concrete:	M20
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	20-08-2020	27-08-2020	7 days	8.120	22500	308	13.69	13.56
2	20-08-2020	27-08-2020	7 days	8.130	22500	305	13.56	
3	20-08-2020	27-08-2020	7 days	8.140	22500	302	13.42	

AE-1

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TEST REPORT

TEJUS CONSULTANTS

Clients	Bruhat Bangalore Mahanagara Palike
Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Consultants	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Total Weight:	10000 gms

SIEVE ANALYSIS

Type of Material	**12.5 mm down size**	**Proposed Use**	CONCRETE
Sample Location	At Site/Plant	**Date of Sampling**	03-09-2020
		Date of Testing	04-09-2020

IS Sieve Size (in mm)	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing
20.0	0	0	0	100	100
12.5	542	542	5.42	94.58	90-100
10.0	4428	4970	49.70	50.30	40-85
4.75	4602	9572	95.72	4.28	0-10
Pan	428	10000			

Remarks : Satisfactory / Not Satisfactory

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CIVIL EXPERTS
ISO 9001:2015
CONSULTANTS & TESTING CENTER

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NABL ACCREDITED AS PER ISO/IEC 17025:2017

Job No.:CECTC-MT-IWD-073-2020-21

Date: 07.09.2020

TEST RESULTS OF PHYSICAL PROPERTIES OF REINFORCEMENT STEEL

Client : Bruhat Bangalore Mahanagara Palike.
Contractor : Sri. Yogesh M/S Nandi Constructions, Bangalore.
Name of Consultant : Tejus Consultants
Name of Work : Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWM head in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06).
Sample Identification : 8mm, 10mm, 12mm, 16mm & 20mm TMT Fe 500 Bars
Technical Reference : IS 1786:2008, IS 1608:2005, IS 1599:1985 (Reaffirmed 2006)
Date of test: : 07.09.2020

Sl.No	Nominal size (dia in mm)	Mass per metre (kg/metre)	TENSILE STRENGTH		
			0.20 % proof stress/ yield stress (N/mm^2)	Tensile strength (N/mm^2)	Elongation, percent on gauge length
1 A.E.F	8	0.395	536	578	18
2	10	0.625	541	586	19
3	12	0.887	554	591	20
4	16	1.597	562	608	21
5	20	2.485	574	615	22

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For Civil Experts

Authorised Signature

174, Sri Ranga Complex, Amrutha Nagar Main Road, New Bank Colony, Kononakunte, Bangalore - 560 062.
Mobile : +91 97429 59595 | Tel/Fax : 080 2632 2565 | Email : civilexpertsltd@gmail.com | URL : www.civilexperts.co.in

Test Report on Compressive Strength of Concrete Cubes

TEJUS

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Location:	Cement
Grade of concrete:	M30
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959
Location:	SWD Culvert,Bande road

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	31-08-2020	07-09-2020	7 days	8.212	22500	440	19.56	19.50
2	31-08-2020	07-09-2020	7 days	8.242	22500	436	19.38	
3	31-08-2020	07-09-2020	7 days	8.236	22500	440	19.56	

Remarks : Satisfactory / Not Satisfactory

Note:

AE-1

A.E.E

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AE

Consultant's Representative

TEJUS CONSULTANTS

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike	
Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)	
Consultants	#REF!	
Contractor	Sri.Yogesh M/s Nandi Constructions,	
Total Weight:	10000	gms

SIEVE ANALYSIS

Type of Material	20 mm down size		**Proposed Use**	Concrete	
Sample Location	At Plant		**Date of Sampling**	08-09-2020	
			Date of Testing	09-09-2020	
IS Sieve Size	**Weight Retained**	**Cum. Weight Retained**	**Cum. % Retained**	**Cum. % Passing**	**Spec. Limit (%) Passing**
40.00 mm	0	0	0	100	**100**
20.00 mm	256	256	2.56	97.44	**95 - 100**
10.00 mm	4540	4796	47.96	52.04	**25 - 55**
4.75 mm	4385	9181	91.81	8.19	**0 - 10**
Pan	819	10000			
Remarks :	AE-I A.E.E.	✓	Satisfactory / Not Satisfactory		

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TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

TEJUS CONSULTANTS

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Grade of concrete:	M20
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959
Location	shivanalli 2nd cross road

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	04-09-2020	10-09-2020	7 days	8.124	22500	311	13.82	13.81
2	04-09-2020	10-09-2020	7 days	8.130	22500	309	13.73	
3	04-09-2020	10-09-2020	7 days	8.140	22500	312	13.87	

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TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

TEJUS CONSULTANTS

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Grade of concrete:	M20
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959
Location	Hemannaswamy road entrence

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	07-09-2020	14-09-2020	7 days	8.124	22500	311	13.82	13.81
2	07-09-2020	14-09-2020	7 days	8.130	22500	309	13.73	
3	07-09-2020	14-09-2020	7 days	8.140	22500	312	13.87	

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TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

TEJUS CONSULTANTS

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Grade of concrete:	M20
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959
Location	KHB colony road

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	19-08-2020	15-09-2020	28 days	8.136	22500	482	21.42	21.27
2	19-08-2020	15-09-2020	28 days	8.132	22500	480	21.33	
3	19-08-2020	15-09-2020	28 days	8.134	22500	474	21.07	

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TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

TEJUS CONSULTANTS

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Grade of concrete:	M20
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959
Location	Hemannaswamy road@ junction

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	10-09-2020	16-09-2020	7 days	8.124	22500	308	13.69	13.81
2	10-09-2020	16-09-2020	7 days	8.130	22500	310	13.78	
3	10-09-2020	16-09-2020	7 days	8.140	22500	314	13.96	

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Test Report on Compressive Strength of Concrete Cubes

TEJUS

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Location:	Cement
Grade of concrete:	M30
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	14-09-2020	21-09-2020	7 days	8.138	22500	470	20.89	20.77
2	14-09-2020	21-09-2020	7 days	8.142	22500	465	20.67	
3	14-09-2020	21-09-2020	7 days	8.184	22500	467	20.76	

Remarks : Satisfactory / Not Satisfactory

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A.E.E.

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Consultant's Representative

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TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

TEJUS CONSULTANTS

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Grade of concrete:	M20
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959
Location	KHB colony road

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	26-08-2020	22-09-2020	28days	8.142	22500	470	20.89	21.10
2	26-08-2020	22-09-2020	28days	8.140	22500	474	21.07	
3	26-08-2020	22-09-2020	28days	8.138	22500	480	21.33	

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TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

TEJUS CONSULTANTS

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Grade of concrete:	M20
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959
Location	KHB colony road

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	26-08-2020	22-09-2020	28days	8.142	22500	470	20.06	20.74
2	26-08-2020	22-09-2020	28days	8.140	22500	474	21.07	
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A.E.E

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TEJUS CONSULTANTS

Test Report on Compressive Strength of Concrete Cubes

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Location:	Cement
Grade of concrete:	M30
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959
Location:	SWD Culvert,Bande road

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	29-08-2020	26-09-2020	28 days	8.164	22500	700	31.11	31.11
2	29-08-2020	26-09-2020	28 days	8.142	22500	698	31.02	
3	29-08-2020	26-09-2020	28 days	8.152	22500	702	31.20	

Remarks : Satisfactory / Not Satisfactory

Note:

AE-1 AEE AE

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TEJUS CONSULTANTS

Consultant's Representative

TEJUS
CONSULTANTS

TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike
Project	Improvements to roads Drains anf other Devlopmental Works in Maruthinagara Ward No 01 Under SWM Head in Chief Nava Nagarottana Grant of Yelahanka Division Package - 05.
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. Yogesh M/S Nandi Constructions
Total Weight:	10000 gms

SIEVE ANALYSIS

Type of Material	20 mm down size	**Proposed Use**	Concrete	
Sample Location	At Plant	**Date of Sampling**	28-09-2020	
		Date of Testing	29-09-2020	

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing
40.00 mm	0	0	0	100	100
20.00 mm	260	260	2.60	97.40	95 - 100
10.00 mm	4982	5242	52.42	47.58	25 - 55
4.75 mm	4344	9586	95.86	4.14	0 - 10
Pan	414	10000			

Remarks : AE-1 PO AE A.E.E Satisfactory / Not Satisfactory

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TEJUS
CONSULTANTS

TEST REPORT

Clients	BRUHAT BENGALORE MAHANAGARA PALIKE
Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. Yogesh M/S Nandi Constructions

SPECIFIC GRAVITY AND WATER ABSORPTION

FINE AGGREGATE (IS-2386-PART-3)

Type of Material	**Sand/M sand**	**Proposed Use**	Concrete
Location/Source	**At Plant/site**	**Date of Sampling**	28-09-2020
Period of Soaking	**24 hours**	**Date of Testing**	29-09-2020

Sl. No.	Test Property	TRIAL - 1	TRIAL - 2	TRIAL - 3	Average
A	Weight of sturated surface dry sample gm.	638	656	674	
B	Weight of oven - dry sample gm.	628	648	666	
C	Weight of Pycnometer Filled with water gm	1275	1275	1275	
D	Weight of Pycnometer + sample + water gm	1676	1688	1698	
E	Bulk specific gravity $\frac{B}{(C+A-D)}$	2.650	2.667	2.653	2.657
G	Absorption (%) $\frac{(A-B)*100}{B}$	1.592	1.235	1.201	1.343

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Remarks : ✓ Satisfactory / Not Satisfactory

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Consultant's Representative

TEJUS CONSULTANTS

Test Report on Cement

TEJUS CONSULTANTS

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Sample ID	Cement
Date of Sample Tested	29-09-2020
Sample Supplied By	Agency

Sl.No.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	94 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	398	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	6mm	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	27.00%	
Remarks :			Satisfactory / Not Satisfactory	

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TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

TEJUS CONSULTANTS

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Grade of concrete:	M20
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959
Location	Hemannaswamy road entrence

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	07-09-2020	05-10-2020	28days	8.142	22500	476	21.16	21.35
2	07-09-2020	05-10-2020	28days	8.140	22500	485	21.56	
3	07-09-2020	05-10-2020	28days	8.138	22500	480	21.33	

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Authorised Signatory

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

TEJUS CONSULTANTS

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Grade of concrete:	M20
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959
Location	Hemannaswamy road@ junction

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	10-09-2020	06-10-2020	28days	8.142	22500	470	20.89	20.99
2	10-09-2020	06-10-2020	28days	8.140	22500	475	21.11	
3	10-09-2020	06-10-2020	28days	8.138	22500	472	20.98	

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Test Report on Cement

TEJUS CONSULTANTS

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Sample ID	Cement
Date of Sample Tested	08-10-2020
Sample Supplied By	Agency

Sl.No.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	110 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	386	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	4mm	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	30.00%	

Remarks : AE-1 — Satisfactory / Not Satisfactory

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TEJUS CONSULTANTS

Consultants Representative

TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike
Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. Yogesh M/S Nandi Constructions
Total Weight:	10000 gms

SIEVE ANALYSIS

Type of Material	12.5 mm down size	Proposed Use	Concrete	
Sample Location	Plant	Date of Sampling	15-10-2020	
		Date of Testing	16-10-2020	

IS Sieve Size (in mm)	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing
20.0	0	0	0	100	100
12.5	595	595	5.95	94.05	90-100
10.0	3362	3957	39.57	60.43	40-85
4.75	5433	9390	93.90	6.10	0-10
Pan	610	10000			

Remarks : A&E-1 ✓ Satisfactory / Not Satisfactory

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GRADATION FOR GSB
(As per MORT&H 400-1,Grading-II)

Name of Work	:	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	:	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant	:	M/s Tejus Consultants
Contractor	:	Sri. Yogesh M/S Nandi Constructions
Date of Testing	:	22-10-2020
Type of Mix	:	GSB
Sample I/D	:	GSB3

Sample Location:	Sapthagiri layout main road	**Date of Sampling:**	21-10-2020	
		Date of testing:	22-10-2020	
Type of material & Purpose:	GSB	**Oven Dry Wt.(gms):**	10000.0	

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
75	0	0	0.00	100.00	-
53	0	0	0.00	100.00	100.00
26.5	2180	2180	21.80	78.20	70-100
9.5	2622	4802	48.02	51.98	50-80
4.75	890	5692	56.92	43.08	40-65
2.36	1120	6812	68.12	31.88	30-50
0.425	1978	8790	87.90	12.10	10-15
0.075	822	9612	96.12	3.88	<5
Pan	388.0				
Total	10000.0				

A.E

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Test Report on Compressive Strength of Concrete Cubes

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Location:	Cement
Grade of concrete:	M30
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959
Location:	SWD Culvert,Bande road

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	29-09-2020	27-10-2020	28 days	8.226	22500	682	30.31	30.61
2	29-09-2020	27-10-2020	28 days	8.126	22500	690	30.67	
3	29-09-2020	27-10-2020	28 days	8.242	22500	694	30.84	

Remarks : Satisfactory / Not Satisfactory

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TEST REPORT

TEJUS CONSULTANTS

Clients	Bruhat Bangalore Mahanagara Palike
Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. Yogesh M/S Nandi Constructions

SIEVE ANALYSIS

Total Weight:	3000 gms		
Type of Materia	Fine aggregate (River Sand/M sand)	Proposed Use	Concrete
Sample Locatior	At Plant/site	Date of Sampling	01-11-2020
		Date of Testing	02-11-2020

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing (Zone-II)
10.00 mm	0	0	0	100.00	100
4.75 mm	207	207	6.90	93.10	90 - 100
2.36 mm	267	474	15.80	84.20	75 - 100
1.18 mm	565	1039	34.63	65.37	55 - 90
0.600 mm	553	1592	53.07	46.93	35 -59
0.300 mm	664	2256	75.20	24.80	8-30
0.150 mm	527	2783	92.77	7.23	0 - 10
Pan	217	3000			-

Remarks : Satisfactory / Not Satisfactory

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Test Report on Cement

TEJUS CONSULTANTS

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. Yogesh M/S Nandi Constructions
Sample ID	Cement
Date of Sample Tested	03-11-2020
Sample Supplied By	Agency

Sl.No.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	116 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	429 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	5 mm	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	27.00%	
Remarks :			Satisfactory / Not Satisfactory	

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike				
Project	Improvements to roads Drains anf other Devlopmental Works in Maruthinagara Ward No 01 Under SWM Head in Chief Nava Nagarottana Grant of Yelahanka Division Package - 05.				
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore				
Contractor	Sri. Yogesh M/S Nandi Constructions				
Total Weight:	10000	gms			

SIEVE ANALYSIS

Type of Material	20 mm down size		**Proposed Use**	Concrete	
Sample Location	At Plant		**Date of Sampling**	04-11-2020	
			Date of Testing	05-11-2020	
IS Sieve Size	**Weight Retained**	**Cum. Weight Retained**	**Cum. % Retained**	**Cum. % Passing**	**Spec. Limit (%) Passing**
40.00 mm	0	0	0	100	100
20.00 mm	278	278	2.78	97.22	95 - 100
10.00 mm	4676	4954	49.54	50.46	25 - 55
4.75 mm	4572	9526	95.26	4.74	0 - 10
Pan	474	10000			

Remarks : AE-1 AEE ✓ Satisfactory / Not Satisfactory

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TEST REPORT

Clients	BRUHAT BENGALORE MAHANAGARA PALIKE
Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. Yogesh M/S Nandi Constructions

SPECIFIC GRAVITY AND WATER ABSORPTION

FINE AGGREGATE (IS-2386-PART-3)

Type of Material	Sand/M sand	Proposed Use	Concrete
Location/Source	At Plant/site	Date of Sampling	06-11-2020
Period of Soaking	24 hours	Date of Testing	07-11-2020

Sl. No.	Test Property	TRIAL - 1	TRIAL - 2	TRIAL - 3	Average
A	Weight of sturated surface dry sample gm.	658	664	661	
B	Weight of oven - dry sample gm.	656	668	655	
C	Weight of Pycnometer Filled with water gm	1275	1275	1275	
D	Weight of Pycnometer + sample + water gm	1693	1695	1688	
E	Bulk specific gravity $\frac{B}{(C+A-D)}$	2.733	2.738	2.641	2.704
G	Absorption (%) $\frac{(A-B)*100}{B}$	0.305	-0.599	0.916	0.207

Remarks : Satisfactory / Not Satisfactory

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TEST REPORT

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Clients	Bruhat Bangalore Mahanagara Palike
Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. Yogesh M/S Nandi Constructions

SIEVE ANALYSIS

Total Weight:	3000 gms			
Type of Materia	Fine aggregate (River Sand/M sand)	**Proposed Use**	Concrete	
Sample Location	At Plant/site	**Date of Sampling**	10-11-2020	
		Date of Testing	11-11-2020	

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing (Zone-II)
10.00 mm	0	0	0	100.00	100
4.75 mm	231	231	7.70	92.30	90 - 100
2.36 mm	265	496	16.53	83.47	75 - 100
1.18 mm	508	1004	33.47	66.53	55 - 90
0.600 mm	547	1551	51.70	48.30	35 -59
0.300 mm	670	2221	74.03	25.97	8-30
0.150 mm	551	2772	92.40	7.60	0 - 10
Pan	228	3000			-

Remarks : AE-1 AE Satisfactory / Not Satisfactory

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TEJUS
CONSULTANTS

Project	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	Bruhat Bengaluru Mahanagara Palike
Consultant	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. Yogesh M/S Nandi Constructions

AGGREGATE IMPACT VALUE (IS: 2386 Part - 4)

Proposed Use	BC	**Date of Sampling**	**19-11-2020**
Sample Location	At Plant	**Date of Testing**	**19-11-2020**

S.No.	**Description**		**Test No.**			**Spec Limit (%)**
			1	**2**	**3**	
1	Wt. of stone pieces (dry) passing IS Sieve 12.5mm but retained in IS sieve 10mm (gm)	(Wa)	388.00	392.00	364.00	
2	Wt. of the fraction retained in IS sieve 2.36mm after the impact test (gm)	(Wb)	295.00	300.00	278.00	
3	Wt. of the fraction passed in IS sieve 2.36mm after the impact test (gm)	(Wc)	93.00	92.00	86.00	
4	Aggregate Impact Value (%)	(Wc/Wa)*100	23.97	23.47	23.63	
5	Average Aggregate impact value	(%)	23.69			Max - 30 %

Remarks : AE-1 AEE Satisfactory / Not Satisfactory

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CONSULTANTS

Name of Work	:	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri. Yogesh M/S Nandi Constructions
Date of Testing	:	21-11-2020
Type of Mix	:	Tack coat
Sample I/D	:	I

DETERMINATION OF RATE OF SPREAD TACK COAT

Determination	Unit	Test No	
		1	2
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq mtr	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.788	0.746
Final weight of plate after application of tack Coat (c)	Kg	0.811	0.769
Weight of tack Coat (d=c-b)	Kg	0.023	0.023
Rate of spread of tack coat	Kg/sq m	0.252	0.252
Average	Kg/sq m	0.252	
Specified Limit	Kg/sq m	**0.250 Kg/sq.m**	

AE-1

AE.E

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Consultant's Representative

TEJUS CONSULTANTS
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Name of Work	:	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri. Yogesh M/S Nandi Constructions
Date of Testing	:	24-11-2020
Type of Mix	:	Tack coat
Sample I/D	:	2

DETERMINATION OF RATE OF SPREAD TACK COAT

Determination	Unit	Test No	
		1	2
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq mtr	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.758	0.762
Final weight of plate after application of tack Coat (c)	Kg	0.781	0.785
Weight of tack Coat (d=c-b)	Kg	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.252	0.253
Average	Kg/sq.m	0.253	
Specified Limit	Kg/sq.m	0.250 Kg/sq.m	

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4.The material used in the site satisfied the standard of MORTH's 5th revision and hence can be used in the work.

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Name of Work	:	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri. Yogesh M/S Nandi Constructions
Date of Testing	:	25-11-2020
Type of Mix	:	Tack coat DBM
Sample I/D	:	5

DETERMINATION OF RATE OF SPREAD TACK COAT

Determination	Unit	Test No	
		1	2
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.790	0.776
Final weight of plate after application of tack Coat (c)	Kg	0.813	0.799
Weight of tack coat (d=c-b)	Kg	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.252	0.256
Average	Kg/sq.m	0.254	
Specified Limit	Kg/sq.m	**0.250 Kg/sq.m**	

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BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

Name of Work	:	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri. Yogesh M/S Nandi Constructions
Date of Testing	:	28-11-2020
Type of Mix	:	BC
Sample I/D	:	BC4

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	930	915
2. Weight of Mixture after extraction, g	881	867
3. Weight of Bitumen	49	48
4. Weight of filter paper before extraction, g	2.00	2.00
5. Weight of filter paper after extraction, g	4.10	4.00
6. Weight of fines, g	2.10	2.00
7. Weight of Bitumen & fines	51.10	50.00
8. Bitumen content in %	5.49	5.46
9. Average Bitumen content in %	5.48	
10. Minimum Bitumen content in %	5.40	

GRADATION FOR BC AFTER EXTRACTION

(As per MORT&H 500-18,Grading-2)

Sample Location:	KHB Colony Road	Date of Sampling:	28-11-2020	
		Date of testing:	28-11-2020	
Type of material & Purpose:	BC	Oven Dry Wt.(gms):	881.0	

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
19.00	0	0	0.00	100.00	100.00
13.20	94	94.0	10.67	89.33	79 - 100
9.50	120	214.0	24.29	75.71	71 - 95
4.75	102	316.0	35.87	64.13	53 - 71
2.360	122	438.0	49.72	50.28	42 - 58
1.180	102	540.0	61.29	38.71	34 - 48
0.600	82	622.0	70.60	29.40	26 - 38
0.300	60	682.0	77.41	22.59	18 - 28
0.150	53	735.0	83.43	16.57	12 - 20
0.075	95	830.0	94.21	5.79	4 - 10
Pan	51.0	881.0			
Total	881.0				

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BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

Name of Work	:	Improvements to Roads,Drains and other developmental works in Kempegowda ward No 01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri. Yogesh M/S Nandi Constructions
Date of Testing	:	01'12-2020
Type of Mix	:	BC
Sample I/D	:	BC5

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	948	926
2. Weight of Mixture after extraction, g	898	878
3. Weight of Bitumen	50	48
4. Weight of filter paper before extraction, g	2.00	2.00
5. Weight of filter paper after extraction, g	4.10	4.00
6. Weight of fines, g	2.10	2.00
7. Weight of Bitumen & fines	52.10	50.00
8. Bitumen content in %	5.50	5.40
9. Average Bitumen content in %	5.45	
10. Minimum Bitumen content in %	5.40	

GRADATION FOR BC AFTER EXTRACTION

(As per MORT&H 500-18,Grading-2)

Sample Location:	Sapthagiri layout main road	Date of Sampling:	01'12-2020
		Date of testing:	01'12-2020
Type of material & Purpose:	BC	Oven Dry Wt (gms):	898.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
19.00	0	0	0.00	100.00	100.00
13.20	90	90.0	10.02	89.98	79 - 100
9.50	123	213.0	23.72	76.28	71 - 95
4.75	92	305.0	33.96	66.04	53 - 71
2.360	146	451.0	50.22	49.78	42 - 58
1.180	103	554.0	61.69	38.31	34 - 48
0.600	75	629.0	70.04	29.96	26 - 38
0.300	72	701.0	78.06	21.94	18 - 28
0.150	50	751.0	83.63	16.37	12 - 20
0.075	69	820.0	91.31	8.69	4 - 10
Pan	78.0	898.0			
Total	898.0				

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Name of Work	:	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri. Yogesh M/S Nandi Constructions
Date of Testing	:	02-12-2020
Type of Mix	:	Tack coat
Sample I/D	:	6

DETERMINATION OF RATE OF SPREAD TACK COAT

Determination	Unit	Test No	
		1	2
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq mtr	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.790	0.760
Final weight of plate after application of tack Coat (c)	Kg	0.813	0.783
Weight of tack Coat (d=c-b)	Kg	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.253	0.253
Average	Kg/sq.m	0.253	
Specified Limit	Kg/sq.m	**0.250 Kg/sq.m**	

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BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

Name of Work	:	Improvements to Roads,Drains and other developmental works in Kempegowda ward No.01 under SWMhead in Chief Minister Nava Nagarothan grants of Yelahanka division, (Package-06)
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri. Yogesh M/S Nandi Constructions
Date of Testing	:	07-12-2020
Type of Mix	:	BC
Sample I/D	:	BC6

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	953	925
2. Weight of Mixture after extraction, g	903	877
3. Weight of Bitumen	50	48
4. Weight of filter paper before extraction, g	2.00	2.00
5. Weight of filter paper after extraction, g	4.10	4.00
6. Weight of fines, g	2.10	2.00
7. Weight of Bitumen & fines	52.10	50.00
8. Bitumen content in %	5.47	5.41
9. Average Bitumen content in %	5.44	
10. Minimum Bitumen content in %	5.40	

GRADATION FOR BC AFTER EXTRACTION

(As per MORT&H 500-18,Grading-2)

Sample Location:	Sapthagiri layout entrance road	Date of Sampling:	07-12-2020
		Date of testing:	07-12-2020
Type of material & Purpose:	BC	Oven Dry Wt (gms):	903.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
19.00	0	0	0.00	100.00	100.00
13.20	85	85.0	9.41	90.59	79 - 100
9.50	125	210.0	23.26	76.74	71 - 95
4.75	96	306.0	33.89	66.11	53 - 71
2.360	155	461.0	51.05	48.95	42 - 58
1.180	103	564.0	62.46	37.54	34 - 48
0.600	76	640.0	70.87	29.13	26 - 38
0.300	75	715.0	79.18	20.82	18 - 28
0.150	54	769.0	85.16	14.84	12 - 20
0.075	62	831.0	92.03	7.97	4 - 10
Pan	72.0	903.0			
Total	903.0				

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